

1. Record Nr.	UNINA9910437906103321
Titolo	Challenges in Mechanics of Time-Dependent Materials and Processes in Conventional and Multifunctional Materials, Volume 2 : Proceedings of the 2012 Annual Conference on Experimental and Applied Mechanics / / edited by Bonnie Antoun, H. Jerry Qi, Richard Hall, G.P. Tandon, Hongbing Lu, Charles Lu
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2013
ISBN	87-438-0236-2 87-438-0198-6 1-283-84883-X 1-4614-4241-9
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (161 p.)
Collana	Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5652 ; ; 37
Altri autori (Persone)	AntounBonnie
Disciplina	620.1123
Soggetti	Engineering Biomaterials Manufactures Technology and Engineering Machines, Tools, Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	From the Contents: KEYNOTE: Elastomeric Polymers for Shockwave Mitigation and Extreme Loading Conditions -- Formulation and Validation of a Thermomechanical Viscoelastic/Viscoplastic Constitutive Model for Amorphous Glassy Polymer -- Temperature Dependent Ductile Material Failure Constitutive Modeling With Validation Experiments -- Inverse Measurement of Stiffness by the normalization technique for J-integral fracture toughness -- Energy Dissipation Mechanism in Nanocomposites Studied via Molecular Dynamics Simulation -- Formulation a Thermomechanical Internal State Variable Constitutive Model for Elastomers.
Sommario/riassunto	Challenges in Mechanics of Time-Dependent Materials and Processes in Conventional and Multifunctional Materials, Volume 2: Proceedings of

the 2012 Annual Conference on Experimental and Applied Mechanics, the second volume of seven from the Conference, brings together 26 contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Experimental and Applied Mechanics, including papers on: Effects of interfaces and interphases on the time-dependent behaviors of composite, hybrid and multifunctional materials Effects of inhomogeneities on the time-dependent behaviors of metallic, polymeric and composite materials Environmental and reactive property change effects on thermomechanical and multifunctional behaviors Challenges in time-dependent behavior modeling in metallic and polymeric materials at low, moderate and high strain rates, and effects of frequency and hysteretic heating Challenges in Time-dependent Behavior Modeling in Composite, Hybrid and Multifunctional Materials - viscoelastoplasticity and damage Modeling and Characterization of Fabrication Processes of Conventional and Multifunctional Materials Time dependent and small-scale effects in micro/nano-scale testing.
